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REISSUE PATENT APPLICATION TRANSMITTAL

Address to:

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Box Patent Application
Washington, DC 20231

Attorney Docket No.	0357-20
First Named Inventor	Sainton, Joseph B.
Original Patent Number	5,761,621
Original Patent Issue Date (Month/Day/Year)	June 2, 1998
Express Mail Label No.	

APPLICATION FOR REISSUE OF:

(check applicable box)



Utility Patent



Design Patent



Plant Patent

APPLICATION ELEMENTS

- ☒ * Fee Transmittal Form (PTO/SB/56)
(Submit an original, and a duplicate for fee processing)
- ☒ Specification and Claims (amended, if appropriate)
- ☒ Drawing(s) (proposed amendments, if appropriate)
- ☒ Reissue Oath / Declaration (original or copy)
(37 C.F.R. § 1.175)(PTO/SB/51 or 52)
- Original U.S. Patent
☒ Offer to Surrender Original Patent (37 C.F.R. § 1.178)
(PTO/SB/53 or PTO/SB/54)
or
☐ Ribboned Original Patent Grant
☐ Affidavit / Declaration of Loss (PTO/SB/55)
- Original U.S. Patent currently assigned?
☒ Yes ☐ No

(If Yes, check applicable box(es))

- ☒ Written Consent of all Assignees (PTO/SB/53 or 54)
- ☒ 37 C.F.R. § 3.73(b) Statement ☐ Power of Attorney

ACCOMPANYING APPLICATION PARTS

- ☐ Foreign Priority Claim (35 U.S.C. 119)
(if applicable)
- ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
- ☐ English Translation of Reissue Oath/Declaration
(if applicable)
- ☐ * Small Entity Statement filed in prior application, Status still proper and desired
(PTO/SB/09-12)
- ☐ Preliminary Amendment
- ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
- ☒ Other: Request for Declaration
of Interference
37 CFR 1.607

* NOTE FOR ITEMS 1 & 10: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

14. CORRESPONDENCE ADDRESS

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Date

Sept. 8, 1999

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REISSUE APPLICATION FEE TRANSMITTAL FORM						Docket Number (Optional) 0357-20		
Claims as Filed - Part 1								
Claims in Patent	For	Number Filed in Reissue Application	(3) Number Extra	Small Entity		Other than a Small Entity		
				Rate	Fee	Rate	Fee	
(A) 24	Total Claims (37 CFR 1.16(j))	(B) 46	**** 22 =	x \$	=	or	x \$ 18 = 396	
(C) 3	Independent Claims (37 CFR 1.16(i))	(D) 12	* 9 =	x \$	=		x \$ 78 = 702	
Basic Fee (37 CFR 1.16(h))					\$		\$ 760	
Total Filing Fee					\$	OR	\$ 1858	
Claims as Amended - Part 2								
	(1) Claims Remaining After Amendment		(2) Highest Number Previously Paid For	(3) Extra Claims Present	Small Entity		Other than a Small Entity	
					Rate	Fee	Rate	Fee
Total Claims (37 CFR 1.16(j))	***	MINUS	**	=	x \$	=	or	x \$ =
Independent Claims (37 CFR 1.16(i))	***	MINUS	*****	=	x \$	=		x \$ =
Total Additional Fee					\$	OR	\$	
<p>* If the entry in (D) is less than the entry in (C), Write "0" in column 3.</p> <p>** If the "Highest Number of Total Claims Previously Paid For" is less than 20, Write "20" in this space.</p> <p>*** After any cancellation of claims</p> <p>**** If "A" is greater than 20, use (B - A); if "A" is 20 or less, use (B - 20).</p> <p>***** "Highest Number of Independent Claims Previously Paid For" or Number of Independent Claims in Patent (C).</p>								
<p><input type="checkbox"/> Please charge Deposit Account No. _____ in the amount of _____.</p> <p>A duplicate copy of this sheet is enclosed.</p>								
<p><input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees under 37 CFR 1.16 or 1.17 which may be required, or credit any overpayment to Deposit Account No. <u>19-2380</u>.</p> <p>A duplicate copy of this sheet is enclosed.</p>								
<p><input type="checkbox"/> A check in the amount of \$ _____ to cover the filing / additional fee is enclosed.</p>								
<p><u>Sept. 8, 1999</u></p> <p>Date</p>				<p><u>Charles M. Leedom, Jr.</u></p> <p>Signature of Applicant, Attorney or Agent of Record</p>				
				<p><u>Charles M. Leedom, Jr.</u></p> <p>Typed or printed name</p>				

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Reissue Application Serial No.: (to be assigned))
Filed: September 6, 1996)
Patent Number 5,761,621)
Granted: June 2, 1998)
Patentee: Joseph B. Sainton et al.)
Title: APPARATUS AND METHODS)
FOR NETWORKING OMNI-)
MODAL RADIO DEVICES)

REQUEST FOR TRANSFER OF DRAWINGS
FROM ORIGINAL PATENT TO REISSUE APPLICATION

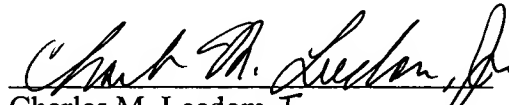
Honorable Assistant Commissioner for Patents

Washington, D.C. 20231

Sir:

Please transfer the drawings from original patent, U.S. Patent No. 5,761,621, filed on September 6, 1996, for the invention entitled APPARATUS AND METHOD FOR NETWORKING OMNI-MODAL RADIO DEVICES to the reissue application, the specification of which is attached hereto.

Respectfully submitted,


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00392676-090899

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Reissue Application Serial No.: (to be assigned))
Filed: September 6, 1996)
Patent Number 5,761,621)
Granted: June 2, 1998)
Patentee: Joseph B. Sainton et al.)
Title: APPARATUS AND METHODS)
FOR NETWORKING OMNI-)
MODAL RADIO DEVICES)

REQUEST FOR DECLARATION
OF INTERFERENCE UNDER 37 CFR 1.607

Honorable Assistant Commissioner for Patents

Washington, D.C. 20231

Sir:

Applicants have filed this reissue application to correct errors, made without deceptive intent, in the above-identified U.S. patent by reason of applicant's failing to claim more or less than they had a right to claim. In particular applicants have added new claims 25 through 46. Claims 25 through 41 have been copied from U.S. Patent No. 5,805,633 issued September 8, 1998 to Uddenfeldt and assigned, at the time of issuance, to Telefonaktiebolaget LM Ericsson. The copied claims of this reissue application correspond to the '633 Uddenfeldt claims as follows:

<u>Reissue App. Claims</u>	<u>'633 Uddenfeldt Claims</u>
25 independent	1
26	3
27	5
28	8
29 independent	9

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668060-929666

<u>Reissue App. Claims</u>	<u>'633 Uddenfeldt Claims</u>
30	12
31	13
32	16
33 independent	17
34	18
35	20
36	21
37	22
38 independent	29 ← propose count
39	31
40	32
41	35

By copying the above identified '633 Uddenfeldt claims, applicants are seeking to provoke an interference with U.S. Patent No. 5,805,633 under 35 USC 135 and is submitting this notification pursuant to 37 CFR 1.607.

Applicants propose the attached count (see Appendix A). The proposed count is identical to claim 29 of the '633 Uddenfeldt patent and new claim 38 of this reissue application. Accordingly claim 38 of this reissue application and claim 29 of the '633 Uddenfeldt patent correspond exactly with the count. In addition the remaining copied claims (25 through 38 and 39 through 41) also correspond to the count. Appendix B demonstrates how the disclosure of the present reissue application discloses each and every limitation of the copied claims 25 through 41.

Because the reissue application is entitled to the effective filing date of parent application Serial No. 167,002 filed December 15, 1993, no prima facie showing under 37 CFR 1.608(b) is required. The undersigned attorney of record states that there is a basis upon which applicants are entitled to a judgment relative to Uddenfeldt.

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Respectfully submitted,

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SECRET

APPENDIX A

PROPOSED COUNT

A cellular communications network providing service over a frequency range comprising a plurality of first frequency bands and a plurality of second frequency bands, said network comprising:

a plurality of radio communications systems, each of said systems providing service in a coverage area, the coverage areas of each of said systems having a common area, each of said systems being exclusively assigned one or more of said first frequency bands for use as control channels for each system and providing service over said plurality of second frequency bands on a shared basis.

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APPENDIX B

Claims Copied from
U.S. Patent No. 5,805,633

Corresponding Claim
No. in '633 Patent

Support in Reissue
Application of '621 Patent

25. In a cellular radio communication network operating over a predetermined frequency range subdivided in frequency into frequency bands,

1

[S-1]

Circuit 1 is designed to operate with "...the U.S. cellular telephone network or Advanced Mobile Phone System (AMPS); alternative cellular telephone networks; digitally modulated radiotelephone systems operating under various encoding techniques such as TDMA, CDMA, E-TDMA and BLDMA; ...Personal Cellular Systems (PCS), col. 5 lines 13-22. The disclosed omni-modal circuit may be used to communicate over AMPS Cellular Telephone System, col. 21, lines 7-8 in data or voice modes, col. 6, line 5, "Circuit 1 may be used to form a multi-modal cellular radiotelephone 1200, col. 20, lines 39-41, col. 20, lines 51-55. The disclosed invention is intended to introduce intense competition for customers among wireless service providers, col. 18, line 32-39, by creating "a free market for the use of frequency spectrum," col. 18, lines 42-44. Different carriers "control" different frequency channels, col. 18, lines 47-49. For example an AMPS system may have an open channel which it could "rent" to another carrier experiencing heavy demand. "This method of operation maximizes the efficient use of available frequencies by allowing carriers to shrink and expand the number of channels available based on demand, col. 18, lines 56-59.

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said network comprising at least a first independent radio communication system and a second independent radio communication system each providing radio telecommunication service over a common geographic region,

a method for using said frequency range comprising the steps of:

assigning from said predetermined frequency range at least one first frequency band to be used as a control channel by said first independent radio communication system;

assigning from said predetermined frequency range at least one second frequency band to be used as a control channel by said second independent radio communication system; and

[S-2]

circuit 1 operates "...over at least two different radio communications networks, and preferably all networks available in a particular area within the frequency range of the transceiver of circuit 1, col. 5, lines 8-13.

[S-3]

"...individual carriers may broadcast pricing information on individual command channels...", col. 19, lines 45-46;

In the method of Fig. 11, the "control" channels of all available carriers accessible within the omni modal circuits range are scanned, col. 20, lines 15-28,

Disclosed software functions to "scan for control channels/available systems," col. 6, lines 6-7.

[see S-3 above]

sharing by said first independent radio communication system and said second independent radio communication system frequency bands in the portion of said predetermined frequency range not assigned as control channels to provide radio telecommunication service to a plurality of subscribers located in said common geographic region.

[S-4]

"A fundamental objective of the subject invention is to overcome the deficiencies of the prior art by providing a truly omni-modal wireless system and method which is adaptive to the selectively variable desires of the end users and is reconfigurable to allow maximum utilization of the total radio frequency spectrum assigned in any given geographic area (sic) for wireless communication." col. 2, lines 36-42 (emphasis added).

"A more specific object of this invention is to provide a network of wireless service providers adapted to interact with a population of omni-modal wireless products within a given geographic area to permit the wireless service providers within the same geographic region. As a cellular service provider in a given region finds that one of its service areas or cells has become nearly or fully loaded, frequency could be borrowed from a competitor, such as a PCS provider serving the same region. Selected omni-modal wireless product users in the overloaded area would be told to switch their omni-modal to the "leased" frequency but to use the non-PCS communications protocol appropriate to the type of service desired by the user. Implementation of this method broadly within a given geographic region will have the effect of insuring that the available radio spectrum is used to its maximum capacity to serve the needs of the wireless users on a real time basis," col. 3, lines 25-42.

See also, col. 18, lines 42 through col. 19, line 11

Circuit 1 can be activated to select a specified channel frequency, but may be activated to use command control, and

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data protocols for that channel that are normally appropriate for different channels, if the carrier controlling the frequency has authorized another carrier to temporarily use the first carrier's channel, col, 18, lines 42-49 allows carriers to share spectrum, col. 18, Lines 56-67.

[S-5]

Carrier needing more capacity will "borrow" spectrum from carrier having excess capacity. The Carrier with excess capacity will "rent" the spectrum. Col. 18, line 31 through col. 19, line 11.

"Connections may be provided between any systems used by the omni-modal circuit 1 to achieve similar objective" col, 21, lines 13-17 as are achieved by linking a AMPs system to a paging system, col. 20, line 56 to col. 22, line 37 and Fig. 14. Claim 1 as originally filed disclosed means for "generating a frequency request signal upon determining that a wireless communication network is at or near full capacity" and a "frequency reallocating means responsive to a frequency request signal to reassign temporarily radio spectrum from a wireless communication network utilizing less of its normally assigned radio frequency to the communication network determined by said capacity detection means to be at or near full capacity".

3

[S-6]

As a cellular service provider in a given region finds that one of its service areas or cells has become nearly or fully loaded, frequency could be borrowed from a competitor. Selected users...would be told to switch their omni-modal device to the "leased" frequency but to use the non-PCS communication protocol, col. 3, lines 31-39.

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26. The method of claim 25 wherein said step of sharing comprises sharing in a coordinated and synchronized manner between said first independent radio communication system and said second independent radio communication system.

27. The method of claim 26 wherein said step of sharing comprises the step of assigning frequency and time slot combinations in response to channel set-up requests received from said first independent radio communication system and said second independent radio communication system.

5

[S-7]

TDMA is specifically referenced as a standard used by wireless carriers, col. 5, line 19; the system works to allow scanning of all available service providers, col. 20, lines 15-35; disclosed invention is designed to address the "anti-competitive effects of carrier monopolies established by FCC channel assignments", col. 19 lines, 7-11. Within U.S. market, multiple carriers using TDMA serve the same market. TDMA means time division multiple access and is commonly understood to involve assignment of frequency and time slot combinations.

28. The method of claim 25 wherein said first independent radio communication system and said second independent radio communication system are designed to provide radio telecommunication services using TDMA.

8

[see S-7]

29. In a cellular radio communication network operating over a predetermined frequency range subdivided in frequency into frequency bands,

9

[see S-2]

said network comprising at least a first independent radio communication system and a second independent radio communication system each providing radio telecommunication service over a common geographic region,

[see S-2]

a method for using said frequency range comprising the steps of:

[see S-3]

assigning from said predetermined frequency range at least one first frequency band to be used as a control channel by said first independent radio communication system;

assigning from said predetermined frequency range at least one second frequency band to be used as a control channel by said second independent radio communication system;

[See S-3]

assigning from said predetermined frequency range a predetermined portion of said predetermined frequency range to be used by said first independent radio communication system to provide radio telecommunication service to a plurality of subscribers located in said geographic region; and

[S-7]

all wireless service providers operating in the U.S. are assigned predetermined frequency. AMPS system have channels assigned for subscriber communication services. [See S-1]

sharing by said first independent radio communication system and said second independent radio communication system frequency bands in the portion of said predetermined frequency range not assigned as control channels or assigned exclusively to said first independent radio communication system, to provide radio telecommunication service to the plurality of subscribers located in said geographic region.

[S-8]

(See S-4) At any given time, only a portion of the user channels in one system would be "leased" to another system.

30. The method of claim 29 wherein said step of sharing comprises sharing in a coordinated and synchronized manner between said first independent radio communication system and said second independent radio communication system.

12

[See S-6]

31. The method of claim 30 wherein said step of sharing is controlled by a processor which assigns frequency and time slot combinations in response to channel set-up requests received from said first independent radio communication system.

13

(See S-7)

In U.S. market, it is common for two TDMA based systems to service the same geographic area. Each system would have a processor for assigning frequency and two slots for service within that system. The process of "renting" unused frequency channels from one TDMA system to another would necessitate the "processor" being aware of what channels were being rented so that no use of that channel would be made by the TDMA renting system.

32. The method of claim 29 wherein said first independent radio communication system and said second independent radio communication system are designed to provide radio telecommunication services using TDMA.

16

[See S-7]

33. In a cellular radio communication network comprising a plurality of systems each providing service within a common geographic area, and operating within a frequency range comprising a plurality of frequency bands, a method of allocating frequency bands to said systems, said method comprising the steps of:

17

[See S-1 and S-2]

assigning one or more first frequency bands to each of said systems, wherein said first frequency bands are used exclusively for control channels within the systems to which each is assigned; and

[See S-3]

allocating one or more second frequency bands to said systems on a shared basis, wherein said second frequency bands are used for traffic channels within the system to which each is currently allocated.

[See S-8]

34. The method of claim 33 wherein said step of allocating comprises:

allocating frequency bands from said second frequency bands for traffic channels within a first one of the plurality of systems independently of the allocation of said second frequency bands within a second one of the plurality of systems.

35. The method of claim 33 wherein said step of allocating comprises:

allocating one or more second frequency bands to each of said systems depending on the allocation of said second frequency bands to the other systems of said network.

36. The method of claim 35 wherein said plurality of systems communicate over time division multiplexed channels, each channel defined by a frequency band and a time slot assignment, and wherein said step of allocating comprises:

receiving a channel allocation request from an originating one of said systems;

determining if channels are available in said network; and

in response to an affirmative determination:

transmitting a channel allocation assignment to said originating system.

37. The method of claim 36 wherein said step of determining if channels are available in said network comprises searching for unused frequency/time slot combinations.

18

(See S-6)

The disclosed system for selective frequency sharing where one system is at or near full capacity would inherently meet the limitations of claim 18.

20

[S-10]

To extent understandable, this claim merely requires that each system be treated in the same fashion. This would be inherent in the frequency sharing concepts of the subject '621 patent.

21

[S-11]

Again this would be inherent whenever two TDMA systems serve a single geographic area and are operated on a frequency sharing basis. See-S-7

22

[S-3]

Control channels are scanned for available frequencies

38. A cellular communications network providing service over a frequency range comprising a plurality of first frequency bands and a plurality of second frequency bands, said network comprising:

a plurality of radio communications systems, each of said systems providing service in a coverage area, the coverage areas of each of said systems having a common area, each of said systems being exclusively assigned one or more of said first frequency bands for use as control channels for each system and providing service over said plurality of second frequency bands on a shared basis

29

(See S-1, S-2, S-3 and S-4)

39. The cellular communications network of claim 38 in which one or more of said systems is exclusively assigned one or more fixed frequency bands for providing service in addition to providing service over said plurality of shared frequency bands.

31

(See S-8)

Unshared frequencies at any given time would respond to these limitations.

40. The cellular communications network of claim 38 further comprising means for allocating said shared frequency bands for communications on a coordinated and synchronized basis.

32

(See S-6)

41. The cellular communications network of claim 38 in which each of said radio communications systems comprises one or more mobile telephone switching offices, and said network further comprises means for allocating unused frequency bands of said second frequency bands among said systems on a shared basis, said means for allocating connected to each of said mobile telephone switching offices.

35

(See S-5)